

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	Group Art Unit: NOT KNOWN
Dean R. Artis et al.	Examiner: NOT KNOWN
Serial No.: To Be Assigned	Confirmation No: Not Known
Filed: 30 SEPTEMBER 2003	CUSTOMER NO: 09157
For: INTEGRIN RECEPTOR INHIBITORS	Express Mail Label No. EV 351 923 170 US
	Date of Deposit: September 30, 2003

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicants submit herewith patents, publications or other information (attached hereto and listed on the attached revised Form PTO-1449) of which they are aware, which they believe may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR § 1.56.

This Information Disclosure Statement is filed in accordance with the provisions of:

☒ **37 CFR § 1.97(b)**

- within three months of the filing date of the application other than a continued prosecution application under 37 CFR § 1.53(d); **or**
- within three months of the date of entry of the national stage of a PCT application as set forth in 37 CFR § 1.491, **or**
- before the mailing of the first Office action on the merits; **or**
- before the mailing of the first Office action after the filing of a request for a continued examination under 37 CFR § 1.114.

☐ **37 CFR § 1.97(c)**

- by the applicant after the period specified in 37 CFR § 1.97(b), but prior to the mailing date of any of a final action under 37 CFR § 1.113, or a notice of allowance under 37 CFR § 1.311, or an action that otherwise closes prosecution in the application, and is accompanied by either the fee set

forth in 37 CFR §1.17(p) **or** a statement as specified in 37 CFR §1.97(e), as checked below.

☐ **37 CFR §1.97(d)**

- after the period specified in CFR §1.97(c), and is accompanied by the fee set forth in 37 CFR §1.17(p) **and** a statement as specified in 37 CFR §1.97(e), as checked below.

[If either of boxes 37 CFR §1.97(c) or 37 CFR §1.97(d) is checked above, the following statement under 37 CFR §1.97(e) may need to be completed.]

- ☐ **37 CFR §1.97(e)** Each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement.
- ☐ **37 CFR §1.704(d)** Each item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application and the communication was not received by any individual designated in §1.56(c) more than thirty days prior to the filing of this information disclosure statement. Therefore, in accordance with the provisions of 37 CFR §1.704(d), the filing of this information disclosure statement will not be considered a failure to engage in reasonable efforts to conclude prosecution under 37 CFR §1.704.
- ☐ The U.S. Patent and Trademark Office is hereby authorized to charge Deposit Account No. 07-0630 in the amount of \$180.00 to cover the cost of this Information Disclosure Statement under 37 CFR §1.17(p). Any deficiency or overpayment should be charged or credited to this deposit account.

A list of the patent(s) or publication(s) is set forth on the attached revised Form PTO-1449 (Modified). A copy of the items on PTO-1449 is supplied herewith.

Those patent(s) or publication(s) which are marked with an asterisk (\*) in the attached PTO-1449 form are not supplied because they were previously cited by or submitted to the Office in a prior application Serial No. 10/313,147, filed December 6, 2002 and relied upon in this application for an earlier filing date under 35 USC §120.

☐ BLAST results enclosed:

The undersigned also wishes to bring to the attention of the Examiner BLAST results of computerized alignments of the against sequences contained in the nucleotide and protein databases. The BLAST results are provided in paper form and are identified as reference "BLAST Results A-1 - A-()" (nucleotide) and "BLAST Results B-1 - B-()" (protein) on the

PTO Form 1449. Applicant requests that these references also be considered and that the Form 1449 be initialed to indicate the Examiner's consideration of the references.

A concise explanation of relevance of the items listed on PTO-1449 is:

- ☒ not given
- ☐ given for each listed item
- ☐ given for only non-English language listed item(s) [Required]
- ☐ in the form of an English language copy of a Search Report from a foreign patent office, issued in a counterpart application, which refers to the relevant portions of the references.

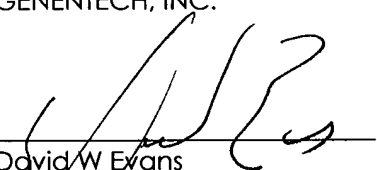
In accordance with 37 CFR § 1.97(g), the filing of this information disclosure statement shall not be construed as a representation that a search has been made.

In accordance with 37 CFR § 1.97(h), the filing of this information disclosure statement shall not be construed to be an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in 37 CFR § 1.56(b).

The Commissioner is hereby authorized to charge any additional fees required under 37 CFR 1.16 and 1.17 for this Information Disclosure Statement, or credit overpayment to Deposit Account No. 07-0630. A duplicate copy of this sheet is enclosed.

Respectfully submitted,  
GENENTECH, INC.

Date: September 30, 2003

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\* A copy of a document pursuant to 37 C.F.R. §101.9(b) is attached as proof of the authorization of the above to prosecute the attached application. The original of this document is on file in the Office of enrollment and Discipline.

FORM PTO-1449  <b>LIST OF DISCLOSURES CITED BY APPLICANT</b> (Use several sheets if necessary)	U.S. Dept. of Commerce Patent and Trademark Office	Atty Docket No. P1845R1C2	Serial No. To Be Assigned
		Applicant Artis, Dean R. et al.	
		Filing Date 30 Sep 2003	Group Not Known

**U.S. PATENT DOCUMENTS**

Examiner Initials	*	Document Number	Date	Name	Class	Subclass	Filing Date
	* 1	5,079,260	07.01.92				
	* 2	5,223,517					
	* 3	5,272,161					
	* 4	5,334,606					
	* 5	5,519,043	21.05.96				
	* 6	5,773,465					
	* 7	5,773,646	30.06.98				
	* 8	5,891,899					
	* 9	5,908,863					
	*10	5,994,351					
	*11	WO 97/01540	16.01.97				

**FOREIGN PATENT DOCUMENTS**

Examiner Initials	*	Document Number	Date	Country	Class	Subclass	Translation Yes      No
	*12	327,877		EPO			
	*13	JP 48054061		JAPAN			
	*14	WO 99/10312	04.03.99	PCT			

**OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, etc.)**

	*15	Andrew, H. F., et al., "Nitration of 3-Methylfluoranthene" <u>J. Chem. Soc.</u> , Perkins Trans. 1 Vol. 6:755-759 (1972)					
	*16	Butcher et al., "Lymphocyte Homing and Homeostasis" <u>Science</u> 272:60-66 (1996)					
	*17	Cardarelli et al., "Cyclic RGD Peptide Inhibits $\alpha 4 \beta 1$ Interaction with Connecting Segment 1 and Vascular Cell Adhesion Molecule" <u>Journal of Biological Chemistry</u> 269:18668-18673 (1994)					
	*18	Chuluyan et al., " $\alpha 4$ -Integrin-dependent emigration of monocytes" <u>Springer Semin. Immunopathology</u> 16:391-404 (1995)					
	*19	"Database Crossfire Beilstein 'Online', Beilstein Institut zur Forderung der Chemischen Wissenschaften, Frankfurt am Main, DE; Database accession no. 2187180 XP002194815 Abstract; & Campbell, Crombie: Proc. Royal Soc. London, Series A, Mathematical & Physical Sciences, 65:376 (1960-1961) Royal Society of					
	*20	Elises et al., "VCAM-1 on activated endothelium interacts with the leukocyte integrin VLA-4 at a site distinct from the VLA-4/fibronectin binding site" <u>Cell</u> 60:577-584 (1990)					
	*21	Fotouhi et al., "Cyclic Thioether Peptide Mimetics as VCAM-VLA-4 Antagonists" <u>Bioorganic &amp; Medicine Chemistry Letters</u> 10:1167-1169 (2000)					
	*22	Hamilton, et al., "Fluorenylalkanoic and Benzoic Acids as Novel Inhibitors of Cell Adhesion Processes in Leukocytes" <u>J. Med. Chem.</u> 38:1650-1656 (1995)					
	*23	Hemler, "VLA proteins in the integrin family: structures, functions, and their role on leukocytes" <u>Annu. Rev. Immunol.</u> 8:365-400 (1990)					
	*24	Hynes, "Integrins: versatility, modulation, and signaling in cell adhesion" <u>Cell</u> 69(1):11-25 (1992)					

Examiner	Date Considered
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\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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				Filing Date 30 Sep 2003		Group Not Known	
OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, etc.)							
	*25	Jackson et al., "Potent $\alpha 4\beta 1$ Peptide Antagonists as Anti-Inflammatory Agents" <u>Journal of Medicinal Chemistry</u> 40(21):3359-3368 (Oct 10, 1997)					
	*26	Juliano et al., "Adhesion molecules in cancer: the role of integrins" <u>Current Opinion Cell Biology</u> 5:812-818 (1993)					
	*27	Laberge, S. et al., "Role of VLA-4 and LFA-1 in Allergen-Induced Airway Hyperresposiveness and Lung Inflammation in the Rat" <u>Am. J. Respir. Crit. Care Med.</u> 151:822-829 (1995)					
	*28	Makarem et al., "Competitive binding of vascular cell adhesion molecule-1 and the HepII/IIICS domain of fibronectin to the integrin $\alpha 4\beta 1$ " <u>Journal of Biological Chemistry</u> 269:4005-4011 (1994)					
	*29	Nakajima et al., "Role of vascular cell adhesion molecule 1/very late activation antigen 4 and intercellular adhesion molecule 1/lymphocyte function-associated antigen 1 interactions in antigen-induced eosinophil and T cell recruitment into the tissue" <u>Journal of Experimental Medicine</u>					
	*30	Sharar et al., "The adhesion cascade and anti-adhesion therapy: an overview" <u>Springer Semin. Immunopathology</u> 16:359-378 (1995)					
	*31	Simmons et al., "Vascular cell adhesion molecule-1 expressed by bone marrow stromal cells mediates the binding of hematopoietic progenitor cells" <u>Blood</u> 80:388-395 (1992)					
Examiner				Date Considered			
*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							